

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)
2. (Currently Amended) Device for centrifuging various samples of a product or a mixture of products which are chemical or biological, which is intended to be positioned on a horizontal working plane including an available area (S) that is less than or equal to about 0.4 m<sup>2</sup>, in order to cooperate with a laboratory analyzer mounted in proximity to the working plane for automatically performing biological or chemical reactions according to a predetermined protocol, the external useful height of which centrifuging device is less than or equal to about 20 cm, comprising in a casing:
  - a vessel which is open at the top and contains a vertical central shaft driven in rotation by a rotary driving means,
  - a horizontal plate, mounted interlocked in rotation on the central shaft and provided with arrangements for parallel mounting, ~~in proximity to each other~~, of two swing trays, **in proximity to each other**, for supporting two sample-receptacle holders which can pivot freely about a horizontal axis in order to assume a horizontally inclined position during the rotation of the plate, and
  - means for indexing the position of the plate each time the plate stops, in order to position said swing trays at predetermined sites; wherein the horizontal plate is provided with through orifices that extend from the bottom of the horizontal plate to the top of the horizontal plate adapted for the mounting of tubes; and wherein  
the device is adapted to automatically receive tubes from the laboratory analyzer and to automatically permit the laboratory analyzer to retrieve tubes from the laboratory analyzer to perform biological or chemical reactions.
3. (Currently Amended) Device according to Claim ~~[[1]]~~ **2**, wherein the device includes two identical vessels containing two identical plates which are linked in rotation and are driven simultaneously by a rotary driving means.

4. (Previously Presented) Device for centrifuging various samples of a product or a mixture of products which are chemical or biological, which is intended to be positioned on a horizontal working plane including an available area (S) that is less than or equal to about 0.4 m<sup>2</sup>, in order to cooperate with a laboratory analyzer mounted in proximity to the working plane for automatically performing biological or chemical reactions according to a specific protocol, the external useful height of which centrifuging device is less than or equal to about 20 cm, comprising in a casing:

- a vessel which is open at the top and contains a vertical central shaft driven in rotation by a rotary driving means,
- a horizontal plate, mounted interlocked in rotation on the central shaft and provided on its surface with a plurality of through orifices for the mounting of tubes which are each intended to contain a volume of a sample to be centrifuged, these through orifices having a substantially elongate shape with front and rear walls inclined at an acute angle of less than 90 degrees relative to the horizontal, and
- means for indexing the position of the plate each time the plate stops, in order to position said through orifices of the tubes at predetermined sites; wherein the horizontal plate is provided with arrangements for the parallel mounting of pivoting swing trays which support microplates.

5. (Cancelled)

6. (Currently Amended) Device according to Claim [[1]] 2, wherein ~~the~~ a rear and front walls of the through orifices of the plate are inclined by an angle of less than or equal to 60 degrees relative to the horizontal.

7. (Currently Amended) Device according to Claim [[1]] 4, wherein the indexing means of each plate comprise a disk which is mounted below each plate so as to be interlocked in rotation with the vertical central shaft and is provided with a recess provided in its outer peripheral edge, a horizontal finger which is held in contact with the disk by an elastic means when the plate is stopped and when it is being indexed and is separated from the disk by an

actuator when the plate is rotating in the centrifuging phase, and means for pivoting the plate stepwise in the indexing phase until said finger cooperates with the recess of the disk.

8. (Cancelled)

9. (Currently Amended) ~~Device according to claim 1,~~ Device for centrifuging various samples of a product or a mixture of products which are chemical or biological, which is intended to be positioned on a horizontal working plane including an available area (S) that is less than or equal to about  $0.4 \text{ m}^2$ , in order to cooperate with a laboratory analyzer mounted in proximity to the working plane for automatically performing biological or chemical reactions according to a specific protocol, the external useful height of which centrifuging device is less than or equal to about 20 cm, comprising in a casing:

- a vessel which is open at the top and contains a vertical central shaft driven in rotation by a rotary driving means,

- a horizontal plate mounted interlocked in rotation on the central shaft and provided on its surface with a plurality of through orifices-for the mounting of tubes which are each intended to contain a volume of a sample to be centrifuged, these through orifices having a substantially elongate shape with front and rear walls inclined at an acute angle of less than 90 degrees relative to the horizontal, and

- means for indexing the position of the plate each time the plate stops, in order to position said through orifices at predetermined sites; wherein

the device is adapted to automatically receive tubes from the laboratory analyzer and to automatically permit the laboratory analyzer to retrieve tubes from the laboratory analyzer to perform biological or chemical reactions; and

wherein the device includes a lid which closes the vessel(s) and is mounted so as to slide on the casing, and ~~in that~~ wherein said indexing means comprise a rack of specific length which is provided on the inner face of the ~~closure~~ lid and is intended to cooperate with a toothed-sector wheel carried by the drive shaft of ~~[[a]]~~ the plate, when opening the vessel ~~vessel(s)~~ by sliding said lid.

10. (Currently Amended) Device according to Claim ~~[[1]]~~ 4, wherein the size of the through orifices of each plate is designed to hold tubes with a volume equal to about 2 ml.
11. (Currently Amended) Device according to Claim ~~[[1]]~~ 4, wherein the maximum rotational speed of each plate is about 13,000 revolutions/minute.
12. (Currently Amended) Device according to Claim ~~[[1]]~~ 4, wherein the size of the through orifices of the plate is designed to hold tubes with a volume equal to about 5 ml.
13. (Previously Presented) Device according to claim 2, wherein the maximum rotational speed of the plate is about 4500 revolutions/minute.
14. (Currently Amended) Device according to Claim ~~[[1]]~~ 2, wherein the maximum rotational speed of the plate is about 5000 revolutions/minute.
15. (Currently Amended) Device according to Claim ~~[[1]]~~ 4, wherein the vessel in the shape of a cylinder has a diameter of ~~the order of~~ about 300 millimeters and a height of ~~the order of~~ about 85 millimeters, for a horizontal plate with a diameter of ~~the order of~~ about 270 millimeters, the casing enclosing the vessel having an external width and length of about 320 millimeters and a height of about of 120 millimeters.
16. (Cancelled)
17. (Currently Amended) Device according to Claim ~~[[1]]~~ 2, wherein the horizontal plate has about 48 through orifices for mounting about 48 tubes.
18. (Cancelled)
19. (Previously Presented) Device according to claim 2, wherein the swing trays are made of metallic material.

20. (Previously Presented) Device according to claim 2, wherein the swing trays are made of a composite material.

21. (Currently Amended) Device according to Claim ~~[[1]]~~ 2, wherein the plate is made of a high-strength aluminum alloy covered with chemical nickel plating.

22. (Previously Presented) Device according to claim 2, wherein the swing trays are made of high-strength metallic material.

23. (Previously Presented) Device according to claim 2, wherein the swing trays are made of a composite material, the composite material including carbon.

24. (Cancelled)

25. (Cancelled)

26. (Currently Amended) ~~Device according to claim 25,~~ Device for centrifuging various samples of a product or a mixture of products which are chemical or biological, which is intended to be positioned on a horizontal working plane in order to cooperate with a laboratory analyzer mounted in proximity to the horizontal working plane for automatically performing biological or chemical reactions according to a predetermined protocol, the device comprising in a casing:

- a vessel which is open at the top and contains a vertical central shaft driven in rotation by a rotary driving means,

- a horizontal plate, mounted interlocked in rotation on the central shaft and provided with arrangements for the parallel mounting, in proximity to each other, of two swing trays for supporting two sample-receptacle holders which can pivot freely about a horizontal axis in order to assume a horizontally inclined position during the rotation of the plate, and

- means for indexing the position of the plate each time the plate stops, in order to position said swing trays at predetermined sites; the plate having two diametrically

**opposite notches in which the swing trays are mounted so as to pivot; wherein the centrifuging device has an external useful height which is less than or equal to about 20 cm and the horizontal working plane on which it is intended to be positioned has an available area (S) of less than or equal to about 0.4 m<sup>2</sup>; and wherein the swing trays are mounted in the notches in such a way that a pivoting axis of said swing trays is offset toward the center of the plate relative to a vertical axis passing through the center of gravity of each swing tray when each of said swing trays are at rest; and**

wherein the horizontal plate is provided with through orifices that extend from the bottom of the horizontal plate to the top of the horizontal plate adapted for the mounting of tubes; and wherein the device is adapted to automatically receive tubes from the laboratory analyzer and to automatically permit the laboratory analyzer to retrieve tubes from the laboratory analyzer to perform biological or chemical reactions.

27. (Previously Presented) Device according to claim ~~[[25]]~~ **26**, wherein the device is adapted to automatically receive tubes from the laboratory analyzer and to automatically permit the laboratory analyzer to retrieve tubes from the laboratory analyzer to perform biological or chemical reactions.